

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (previously presented) A method for determining an age of an object comprising:
measuring a first strength of a first scent of said object with a first electronic sensor, a decay rate constant (α_1) of said first scent being known;
measuring simultaneously a second strength of a second scent of said object with a second electronic sensor, a decay rate constant (α_2) of said second scent being known;
calculating a current scent ratio (σ) of said first and second scent strengths;
calculating said age of said object starting from a reference time for which a reference scent ratio (σ_0) of said scent strengths has been registered; and
displaying said age.

2. (previously presented) The method of claim 1, wherein said calculating said age is performed by applying to said current scent ratio σ the following formula, giving said age of said object as represented by the symbol t :

$$t = (\alpha_1 - \alpha_2)^{-1} \cdot \ln \left(\frac{\sigma}{\sigma_0} \right),$$

where σ_0 designates said reference scent ratio, and α_1 and α_2 designate said first and second decay rate constants of said first and second scents, respectively.

3. (previously presented) The method of claim 1, wherein said calculating said age is performed by comparing said current scent ratio (σ) to preregistered data corresponding to respective age values.

4. (previously presented) The method of claim 1, wherein said reference scent ratio (σ_0) is determined by measuring said first and second scent strengths at an initial time from which said age of said object is to be determined.

5. (previously presented) The method of claim 1, wherein said first and second decay rate constants (α_1 , α_2) are determined during a process of characterizing of sensors measuring said first and second scents.

6. (previously presented) The method of claim 1, wherein said first scent is included in a first volatile compound sprayed on said object and said second scent is included in a second volatile compound sprayed on said object.

7. (previously presented) The method of claim 6, wherein said reference scent ratio (σ_0) is preregistered and corresponds to said first and second scent strengths when spraying said compound.

8. (previously presented) A method of determining a freshness of goods from a reference time, comprising:

measuring a first strength of a first scent of said goods with a first electronic sensor, a decay rate constant (α_1) of said first scent being known;

measuring simultaneously a second strength of a second scent of said goods with a second electronic sensor, a decay rate constant (α_2) of said second scent being known;

calculating a current scent ratio (σ) of said first and second scent strengths;

calculating said freshness of said goods starting from a reference time for which a reference scent ratio (σ_0) of said scent strengths has been registered; and

displaying an indicator of said freshness.

Claim 9 (canceled)

10. (previously presented) A method of sealing an object, comprising:

introducing into an impermeable seal attached to said object a first volatile component;

introducing into said impermeable seal a second volatile component;

simultaneously determining a first scent strength of said first volatile component and a second scent strength of said second volatile component at a time when said impermeable seal is unbroken;

determining a reference scent ratio (σ_0) from said first scent strength and said second scent strength; and

determining whether said impermeable seal is broken based on said reference scent ratio (σ_0).

11. (previously presented) The method of claim 10, further comprising:

simultaneously determining a first scent strength of said first volatile component and a second scent strength of said second volatile component at a second time that is subsequent to said time when said impermeable seal is unbroken; and

calculating a current scent ratio (σ) from said first scent strength and said second scent strength that are determined at said second time, wherein said seal is considered to have been broken if said current scent ratio (σ) differs from said reference scent ratio (σ_0) by more than an acceptable error ϵ .

12. (previously presented) A system for determining an age of an object containing first volatile component and a second volatile component, comprising:

a first electronic sensor that generates a first signal in response to a first scent of said first volatile component;

a second electronic sensor that generates a second signal in response to a second scent of said second volatile component;

a calculating unit for calculating a current scent ratio (σ) based on said first and second signals, and for extracting said age of said object from a reference time for which a reference scent ratio (σ_0) is registered; and

a display for displaying an indicator of said age.

13. (currently amended) A method of marking an object with a volatile identification code, comprising:

spraying a first volatile component onto said object;

spraying a second volatile component onto said object, wherein volatile characteristics of said first and second volatile components sprayed on said object define said volatile identification code; and

~~The method of claim 9, further comprising~~ sensing said volatile characteristics via a set of sensors that generate a distinctive signature that are associated with spraying both said first volatile component and said second volatile component on said object.

14. (previously presented) The system of claim 12, wherein said calculating unit extracts said age of said object by applying to said current scent ratio σ the following formula, giving said age of said object as represented by the symbol t :

$$t = (\alpha_1 - \alpha_2)^{-1} \cdot \ln \left(\frac{\sigma}{\sigma_0} \right),$$

where σ_0 designates said reference scent ratio, and α_1 and α_2 designate first and second decay rate constants of said first and second scents, respectively.